

WHAT IS CLAIMED IS:

1. A print control apparatus which can communicate with a host computer and an image output apparatus, comprising:

5 obtaining means for obtaining system information from said host computer;

data generating means for generating second data which can be outputted from said image output apparatus from first data which is inputted from said host  
10 computer;

first data compressing means for generating third data by performing a data compression based on a first compression format to said second data;

second data compressing means for generating  
15 fourth data by performing a data compression based on a second compression format different from said first compression format to said second data;

first output means for analyzing said system information which is obtained by said obtaining means  
20 and outputting said third or fourth data to said host computer;

first data decompressing means for generating fifth data by performing a data decompression corresponding to said first compression format to said  
25 third data which is inputted from said host computer;

second data decompressing means for generating sixth data by performing a data decompression

corresponding to said second compression format to said fourth data which is inputted from said host computer; and

second output means for outputting said fifth or  
5 sixth data to said image output apparatus.

2. An apparatus according to claim 1, wherein said first data is code data according to a page description language.  
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3. An apparatus according to claim 1, wherein said second data is bit map data according to a dot format.

15 4. An apparatus according to claim 1, wherein said first compression format which is used in said first data compressing means is a reversible compression format, and the decompression which is executed by said first data decompressing means is a  
20 decompression to data of a format opposite to said reversible compression format.

5. An apparatus according to claim 1, wherein said first compression format which is used in said  
25 first data compressing means is a run length compression format, and the decompression which is executed by said first data decompressing means is a

decompression to data of a format opposite to said run length compression format.

6. An apparatus according to claim 1, wherein  
5 said second compression format which is used in said second data compressing means is an irreversible compression format, and the decompression which is executed by said second data decompressing means is a decompression to data of a format opposite to said  
10 irreversible compression format.

7. An apparatus according to claim 1, wherein  
said second compression format which is used in said second data compressing means is a JPEG compression  
15 format, and the decompression which is executed by said second data decompressing means is a decompression to data of a format opposite to said JPEG compression format.

20 8. An apparatus according to claim 1, wherein said system information which is obtained by said obtaining means is a capacity of a memory which said host computer has.

25 9. An apparatus according to claim 1, wherein said system information which is obtained by said obtaining means is a free capacity in a memory which

said host computer has.

10. An apparatus according to claim 1, wherein  
said third or fourth data which is outputted by said  
5 first output means is stored in a host memory or a hard  
disk which is built in said host computer.

11. An apparatus according to claim 1, wherein  
when said first data is color image data, said first  
10 and second data compressing means generate compression  
data every color component.

12. An apparatus according to claim 1, wherein  
said print control apparatus and said host computer are  
15 connected by a predetermined bus interface.

13. A print control method in a print control  
apparatus which can communicate with a host computer  
and an image output apparatus, comprising:  
20 an obtaining step of obtaining system information  
from said host computer;  
a data generating step of generating second data  
which can be outputted from said image output apparatus  
from first data which is inputted from said host  
25 computer;  
a first data compressing step of generating third  
data by performing a data compression based on a first

compression format to said second data;

5 a second data compressing step of generating  
fourth data by performing a data compression based on a  
second compression format different from said first  
compression format to said second data;

a first output step of analyzing said system  
information which is obtained by said obtaining step  
and outputting said third or fourth data to said host  
computer;

10 a first data decompressing step of generating  
fifth data by performing a data decompression  
corresponding to said first compression format to said  
third data which is inputted from said host computer;

15 a second data decompressing step of generating  
sixth data by performing a data decompression  
corresponding to said second compression format to said  
fourth data which is inputted from said host computer;  
and

20 a second output step of outputting said fifth or  
sixth data to said image output apparatus.

14. A method according to claim 13, wherein said  
first data is code data according to a page description  
language.

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15. A method according to claim 13, wherein said  
second data is bit map data according to a dot format.

16. A method according to claim 13, wherein said first compression format which is used in said first data compressing step is a reversible compression format, and the decompression which is executed in said first data decompressing step is a decompression to data of a format opposite to said reversible compression format.

17. A method according to claim 13, wherein said first compression format which is used in said first data compressing step is a run length compression format, and the decompression which is executed in said first data decompressing step is a decompression to data of a format opposite to said run length compression format.

18. A method according to claim 13, wherein said second compression format which is used in said second data compressing step is an irreversible compression format, and the decompression which is executed in said second data decompressing step is a decompression to data of a format opposite to said irreversible compression format.

19. A method according to claim 13, wherein said second compression format which is used in said second data compressing step is a JPEG compression format, and

the decompression which is executed in said second data decompressing step is a decompression to data of a format opposite to said JPEG compression format.

5           20. A method according to claim 13, wherein said system information which is obtained by said obtaining step is a capacity of a memory which said host computer has.

10           21. A method according to claim 13, wherein said system information which is obtained by said obtaining step is a free capacity in a memory which said host computer has.

15           22. A method according to claim 13, wherein said third or fourth data which is outputted by said first output step is stored in a host memory or a hard disk which is built in said host computer.

20           23. A computer-readable memory medium which records a program for allowing a print control apparatus which can communicate with a host computer and an image output apparatus to execute said program, wherein said program comprises:

25           an obtaining step of obtaining system information from said host computer;

          a data generating step of generating second data

which can be outputted from said image output apparatus  
from first data which is inputted from said host  
computer;

5 a first data compressing step of generating third  
data by performing a data compression based on a first  
compression format to said second data;

10 a second data compressing step of generating  
fourth data by performing a data compression based on a  
second compression format different from said first  
compression format to said second data;

a first output step of analyzing said system  
information which is obtained by said obtaining step  
and outputting said third or fourth data to said host  
computer;

15 a first data decompressing step of generating  
fifth data by performing a data decompression  
corresponding to said first compression format to said  
third data which is inputted from said host computer;

20 a second data decompressing step of generating  
sixth data by performing a data decompression  
corresponding to said second compression format to said  
fourth data which is inputted from said host computer;  
and

25 a second output step of outputting said fifth or  
sixth data to said image output apparatus.

24. A medium according to claim 23, wherein said



first data is code data according to a page description language.

25. A medium according to claim 23, wherein said  
5 second data is bit map data according to a dot format.

26. A medium according to claim 23, wherein said  
first compression format which is used in said first  
data compressing step is a reversible compression  
10 format, and the decompression which is executed in said  
first data decompressing step is a decompression to  
data of a format opposite to said reversible  
compression format.

27. A medium according to claim 23, wherein said  
15 first compression format which is used in said first  
data compressing step is a run length compression  
format, and the decompression which is executed in said  
first data decompressing step is a decompression to  
20 data of a format opposite to said run length  
compression format.

28. A medium according to claim 23, wherein said  
second compression format which is used in said second  
25 data compressing step is an irreversible compression  
format, and the decompression which is executed in said  
second data decompressing step is a decompression to

data of a format opposite to said irreversible  
compression format.

29. A medium according to claim 23, wherein said  
5 second compression format which is used in said second  
data compressing step is a JPEG compression format, and  
the decompression which is executed in said second data  
decompressing step is a decompression to data of a  
format opposite to said JPEG compression format.

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30. A medium according to claim 23, wherein said  
system information which is obtained by said obtaining  
step is a capacity of a memory which said host computer  
has.

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31. A medium according to claim 23, wherein said  
system information which is obtained by said obtaining  
step is a free capacity in a memory which said host  
computer has.

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32. A medium according to claim 23, wherein said  
third or fourth data which is outputted by said first  
output step is stored in a host memory or a hard disk  
which is built in said host computer.

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33. A print control apparatus which can  
communicate with a host computer and a printing

apparatus, comprising:

data generating means for generating bit map data which can be outputted from said printing apparatus from print data which is inputted from said host

5 computer;

data compressing means for selecting one of a plurality of compression formats for said bit map data and generating compression data by performing a data compression based on said selected compression format;

10 first output means for outputting the compression data generated by said data compressing means to said host computer;

data decompressing means for generating bit map data by performing a data decompression to said  
15 compression data which is inputted from said host computer;

second output means for outputting the bit map data generated by said data decompressing means to said printing apparatus; and

20 control means for selecting the compression format in said data compressing means on the basis of information obtained from said host computer.

34. An apparatus according to claim 33, wherein  
25 said control means selects the compression format in said data compressing means on the basis of a memory capacity of said host computer obtained from said host

computer.

35. A print control system having a host computer  
and a print control apparatus, wherein said print  
5 control apparatus comprises:

connecting means for connecting a printing  
apparatus;

data generating means for generating bit map data  
which can be outputted from said printing apparatus  
10 from print data which is inputted from said host  
computer;

data compressing means for selecting one of a  
plurality of compression formats for said bit map data  
and generating compression data by performing a data  
15 compression based on said selected compression format;

first output means for outputting the compression  
data generated by said data compressing means to said  
host computer;

data decompressing means for generating bit map  
20 data by performing a data decompression to said  
compression data which is inputted from said host  
computer;

second output means for outputting the bit map  
data generated by said data decompressing means to said  
25 printing apparatus; and

control means for selecting the compression format  
in said data compressing means on the basis of

information obtained from said host computer.

36. A system according to claim 35, wherein said  
print data is data received by said host computer from  
5 another apparatus through a network.

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